

REMARKS

Reconsideration of the above-identified patent application in view of the remarks following is respectfully requested. Claims 1-6 are pending in the application. Claims 1-6 have been rejected. The rejection of claims 1-6 is respectfully traversed.

The current invention is of a method for auto negotiation of Forward error correction (FEC) between network units in an Ethernet passive optical network (EPON). A specific auto-negotiation mechanism is described with respect to frame-based FEC for Ethernet packets. The auto-negotiation represents a protocol change, i.e. the auto-negotiation is defined by the choice of responding with particular data upon receiving the same particular data, which changes the protocol transmitted on the line. An optical network unit (ONU) changes its protocol state according to the state of a partner, an optical line terminal (OLT). Conversely, the OLT changes its protocol state according to the state of the ONU is exchanges data with. In other words, both the ONU and the OLT change their transmission data according to what the respective partner is transmitting. The data is transmitted on the link in both directions in an automatic auto-negotiation manner. With the specific FEC described, a non-FEC supporting device can work with a FEC supporting device. That is, the system and method can work and perform FEC with non-FEC compliant devices. The OLT and ONU can work together and enable/disable the FEC according to the status of one or both devices in the line. These are features non-existent in any prior art.

§ 102 Rejections

Claims 1-6 were rejected under 35 U.S.C. 102(e) as being anticipated by Brisette et al, US 7,062,165 (hereinafter Brisette). The rejection is respectfully traversed. Applicant respectfully submits that the rejection did not address claims 1 and 2 at all. The specific text used in the rejection is that of claim 3.

Brisette's invention is of a method to improve receiver performance using a forward error correction (FEC) mechanism with a monitoring engine. Brisette discloses a method to change a specific receiver characteristic according to certain link conditions in order to improve the link performance, not a protocol change (auto negotiation) according to certain protocol conditions and certain link conditions. In

other words, Brisette's method has nothing to do whatsoever with auto-negotiation in the sense of protocol change and interaction between link partners. In particular, Brisette does not provide a system/method in which there is a choice of responding with particular data upon receiving the same particular data (or other criteria in different claims), thereby changing the protocol transmitted on the line. This choice between transmission of different FEC and non-FEC data is recited in all independent claims of the current invention.

The Examiner's position is that regarding claims 1, 2, 3 and 5, Brisette discloses in Figure 1, a method of initiating forward error correction and managing forward error correction in an Ethernet passive optical network including at least one optical network unit, comprising the steps of:

(a) monitoring communications quality from the at least one optical network unit, thereby determining a figure of merit of said communications;

(b) upon finding said figure of merit to be insufficient, transmitting thereafter forward error corrected data to the at least one optical network unit (col. 2, lines 29-43); and

(c) upon finding said figure of merit to be sufficient, transmitting thereafter data not forward error corrected data to the at least one optical network unit (col. 2, lines 29-43).

Applicant respectfully submits that the steps recited above refer only to claim 3. It seems that claims 1 and 2 are not addressed at all in the rejection. Irrespective of claims 1 and 2 not being addressed, Applicant respectfully submits that Brisette does not disclose their limitations and therefore cannot and does not anticipate them. Moreover, Brisette cannot even render these claims unpatentable.

Column 2, lines 29-43 in Brisette reads:

According to still a further aspect of the present invention, there is provided a performance monitoring device for monitoring the performance of a data regenerator that corrects a received data signal based on forward error correction information contained in the received data signal. The performance monitoring device includes comparison means for receiving a corrected binary data signal and an uncorrected binary data signal from the data regenerator and performing a bit-by-bit comparison of the corrected and uncorrected binary data signals to determine when a logic "1" has been corrected

to a logic "0" and when a logic "0" has been corrected to a logic "1" by the data regenerator, and signal generating means responsive to the comparison means for generating a signal representative of the ratio of corrected logic "1"s and logic "0"s.

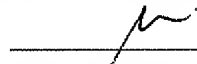
With regard to claim 3, Applicant respectfully submits that Brisette's description above has nothing to do whatsoever with transmitting FEC corrected data or non-FEC corrected data to an ONU based on a figure of merit, as claimed in claim 3. Since Brisette does not disclose the claim's limitations, Brisette cannot and does not anticipate claim 3. Moreover, Brisette cannot even render claim 3 unpatentable.

With regard to claim 4, the Examiner's position is that Brisette discloses wherein said figure of merit is selected from the group consisting of: (i) bit error rate, (ii) parity violation rate, (iii) 8B/10B coding violation rate; and (iv) frame error rate (col. 2, lines 29-43; col. 3, lines 40-61; col. 4, lines 56-65). Applicant submits that since Brisette fails to disclose the limitations of claim 3, he fails to disclose the limitations of claim 4 which depends from claim 3. Therefore, Brisette cannot and does not anticipate claim 4. Moreover, Brisette cannot even render claim 4 unpatentable.

With regard to claim 5, Applicant respectfully submits that Brisette's description above has nothing to do whatsoever with transmitting FEC corrected data or non-FEC corrected data to an OLT based on a figure of merit, as claimed in claim 5. Since Brisette does not disclose the claim's limitations, Brisette cannot and does not anticipate claim 3. Similarly to argued above, Brisette cannot and does not anticipate claim 6, which depends from claim 5. Moreover, Brisette cannot even render claims 5 and 6 unpatentable.

In view of the above amendments and remarks it is respectfully submitted that claims 1-6 are in condition for allowance. Prompt notice of allowance is respectfully and earnestly solicited.

Respectfully submitted,



Mark M. Friedman
Attorney for Applicant
Registration No. 33,883

Date: February 27, 2008